Joerger ENTERPRISES, INC.

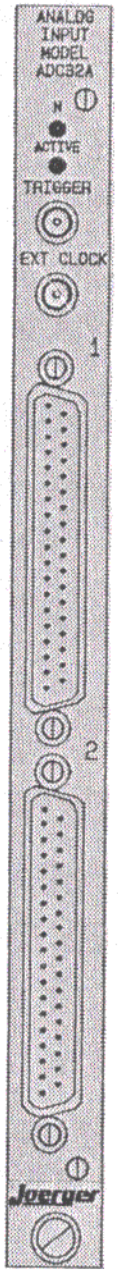
MODEL ADC32A

HIGH SPEED 32 CHANNEL SCANNING ADC AND DATA LOGGER

"NEW"

FEATURES:

- HIGH SPEED ADC, 10μSEC PER CHANNEL
- 12 BIT RESOLUTION WITH SAMPLE AND HOLD INPUT
- INSTRUMENTATION AMPLIFIER, PROGRAMMABLE GAIN PER CHANNEL
- 32 DIFFERENTIAL INPUT CHANNELS
- ACTIVE CHANNELS PROGRAMMABLY SELECTED
- CONTINUOUS, BURST OR MULTIBURST MODES PROGRAMMABLY SET
- ACTIVE MEMORY SIZE PROGRAMMABLE UP TO 2MEGA WORDS



The JOERGER ENTERPRISES, INC. MODEL ADC32A is a scanning 32 channel differential analog input module capable of operating as an ADC or data logger. To satisfy a wide range of applications the module is completely programmable. To match the module to the application, the number of active channels can be programmed along with the active memory size. This allows only the channels of interest to be scanned and stored. The module can be set for continuous scan or for one of two triggered modes of operation; single burst or multiburst For data logging up to two megawords of memory is available. The standard input is bipolar, ±10 volts, as an option it can be set for unipolar operation. To better match the input to the ADC range, a programmable instrumentation amplifier is provided with gain selections of 1, 2, 4, or 8. The gains can either be set for each individual channel or one gain can be used for the complete module. To simplify data readout, each channel is read out along with the gain of the amplifier for that channel. Data can be read out directly or in a block mode with offset binary coding. Direct readout is accomplished using F0 and F1 with the appropriate subaddress. This can be done while the unit is active so that data can be read on the fly. The block readout is available by using F2. To insure good noise rejection and channel isolation, the analog section is carefully grounded and the power lines well filtered. Input filtering on the analog inputs is available as an option.

SPECIFICATIONS

CHANNELS	32 Differential Inputs
ACTIVE CHANNELS	1, 2, 4, 8, 16, 32 Channels, Programmably Set
GAIN SELECTION	1, 2, 4, 8 Individually Set Per Channel
INPUT RANGE	Bipolar ±10V Standard, Unipolar +10V Optional
RESOLUTION	12 Bits
ACCURACY	±.024%
APERTURE JITTER	150psec.
INPUT IMPEDANCE	100M Ohms Minimum
CONVERSION TIME	10μsec. Per Channel Maximum
ACTIVE MEMORY	Selectively Set to 2M Words Maximum, 128K Standard
SCAN TRIGGER INPUT	External Negative Going TTL
EXTERNAL CLOCK INPUT	External Negative Going TTL

CAMAC COMMANDS

0·Ai	Reads data from Channels 1-16 on R1-12 and amplifier gain on R15, 16
1·Ai	Reads Data from Channels 17-32 on R1-12 and amplifier gain on R15, 16
2_0	Reads the active memory in a block mode, data on R1-12, gain on R15, 16
3_0	Reads module identity
4_0	Reads module status; active channels, active memory size, operating mode, module active, internal or external clock and common or individual channel gain select
8_0	Tests LAM, Q=1 if LAM is set and enabled
9_0	Resets module to 32 channel scanning ADC, with 32 word memory, Common Gain = 1, internal clock and continuous scan (ADC32 operating mode)
10_0	Resets LAM
16_0	Writes module status; sets number of active channels, size of active memory, operating mode, internal or external clock, activates single gain mode for all channels and sets gain
17·Ai	Sets gain on Channels 1-16 with data on W1, 2
20·Ai	Sets gain on Channels 17-32 with data on W1, 2
24_0	Disables LAM response
24_1	Disable trigger override, LAM must be reset to accept trigger (only if enabled)
25_0	When in burst mode and not active, resets LAM FF and triggers scan.
25_1	Stops cycle, resets counter
26_0	Enables LAM response
26_1	Enable trigger override (trigger will clear LAM and start burst cycle)
27_0	Tests LAM, Q=1 if LAM is set
27_1	Tests module busy, Q=1 if module is in a triggered data acquisition cycle
X	An X=1 for all valid commands
Q	A Q=1 for F0, 1, 3, 4 and in response to F2, 8, 16, 17, 20, 25 and 27
L	An L response is generated in the burst mode when the active memory has been filled, in multi-burst mode when the modules complete memory is full
Z	Resets module (ADC32 Emulation)
Power Up	Resets module (ADC32 Emulation)

INDICATORS	"N" Module is addressed "ACTIVE" Module is in a data acquisition cycle
POWER REQUIREMENTS	+6v, 325ma; +24v, 20ma; -24v, 20ma
SIZE	Single width CAMAC module
CONNECTORS	DATA -DC37P; TRIGGER, CLOCK -LEMO RA00250
TEMPERATURE RANGE	20°C to 50°C
OPTIONS	1. Unipolar input range 0 to +10v 2. Memory capacity, 128K (standard) 512K, 1M, 2M 3. Input filters

JEI0194

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